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PASSWORD:
TERMINAL (ENTER 1, 2, 3, OR ?):2

* * * * * * * * * * Welcome to STN International * * * * * * * * * *

NEWS	1		Web Page URLs for STN Seminar Schedule - N. America
NEWS	2		"Ask CAS" for self-help around the clock
NEWS	3	SEP 01	INPADOC: New family current-awareness alert (SDI) available
NEWS	4	SEP 01	New pricing for the Save Answers for SciFinder Wizard within STN Express with Discover!
NEWS	5	SEP 01	New display format, HITSTR, available in WPIDS/WPINDEX/WPIX
NEWS	6	SEP 27	STANDARDS will no longer be available on STN
NEWS	7	SEP 27	SWETSCAN will no longer be available on STN
NEWS	8	OCT 28	KOREAPAT now available on STN
NEWS	9	NOV 18	Current-awareness alerts, saved answer sets, and current search transcripts to be affected by CERAB, COMPUAB, ELCOM, and SOLIDSTATE reloads

NEWS EXPRESS	OCTOBER 29 CURRENT WINDOWS VERSION IS V7.01A, CURRENT MACINTOSH VERSION IS V6.0c(ENG) AND V6.0Jc(JP), AND CURRENT DISCOVER FILE IS DATED 11 AUGUST 2004
NEWS HOURS	STN Operating Hours Plus Help Desk Availability
NEWS INTER	General Internet Information
NEWS LOGIN	Welcome Banner and News Items
NEWS PHONE	Direct Dial and Telecommunication Network Access to STN
NEWS WWW	CAS World Wide Web Site (general information)

Enter NEWS followed by the item number or name to see news on that specific topic.

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* * * * * * * * * * * * * STN Columbus * * * * * * * * * * * * * * * *

FILE 'HOME' ENTERED AT 17:51:13 ON 23 NOV 2004

=> file reg

COST IN U.S. DOLLARS	SINCE FILE ENTRY	TOTAL SESSION
FULL ESTIMATED COST	0.21	0.21

FILE 'REGISTRY' ENTERED AT 17:51:23 ON 23 NOV 2004
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Property values tagged with IC are from the ZIC/VINITI data file provided by InfoChem.

STRUCTURE FILE UPDATES: 22 NOV 2004 HIGHEST RN 786612-66-6
DICTIONARY FILE UPDATES: 22 NOV 2004 HIGHEST RN 786612-66-6

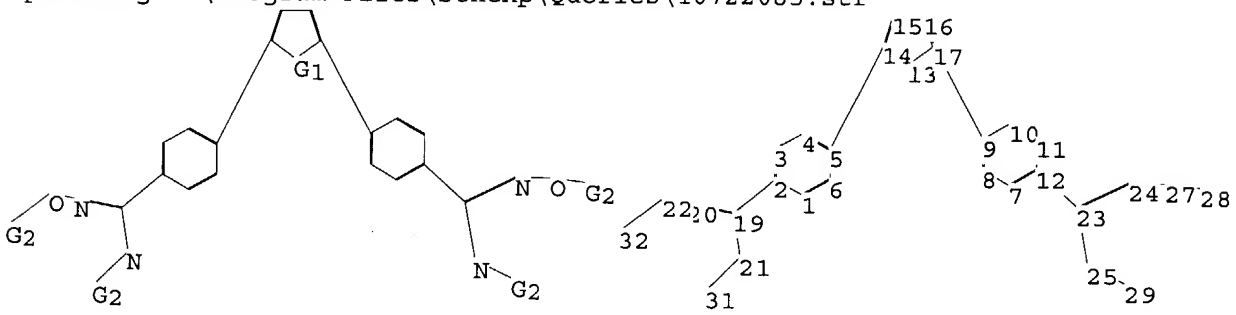
TSCA INFORMATION NOW CURRENT THROUGH MAY 21, 2004

Please note that search-term pricing does apply when conducting SmartSELECT searches.

Crossover limits have been increased. See HELP CROSSOVER for details.

Experimental and calculated property data are now available. For more information enter HELP PROP at an arrow prompt in the file or refer to the file summary sheet on the web at:
http://www.cas.org/ONLINE/DBSS/registryss.html

=>
Uploading C:\Program Files\Stnexp\Queries\10722085.str



chain nodes :
19 20 21 22 23 24 25 27 28 29 31 32
ring nodes :
1 2 3 4 5 6 7 8 9 10 11 12 13 14 15 16 17
chain bonds :
2-19 5-14 9-17 12-23 19-20 19-21 20-22 21-31 22-32 23-24 23-25 24-27 25-29 27-28
ring bonds :
1-2 1-6 2-3 3-4 4-5 5-6 7-8 7-12 8-9 9-10 10-11 11-12 13-14 13-17 14-15 15-16 16-17
exact/norm bonds :
2-19 5-14 9-17 12-23 13-14 13-17 14-15 15-16 16-17 19-20 19-21 20-22 21-31 22-32 23-24 23-25 24-27 25-29 27-28
normalized bonds :
1-2 1-6 2-3 3-4 4-5 5-6 7-8 7-12 8-9 9-10 10-11 11-12

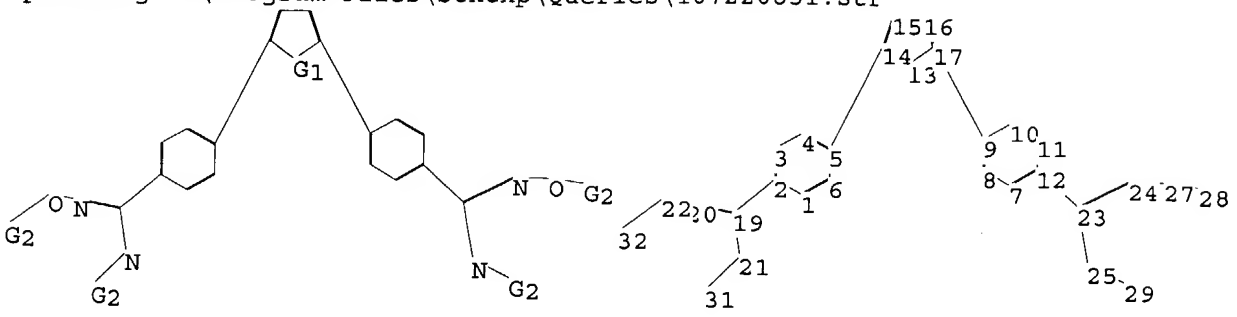
G1:O,S,CH2,NH

G2:H,Cb,Ak

Match level :
1:Atom 2:Atom 3:Atom 4:Atom 5:Atom 6:Atom 7:Atom 8:Atom 9:Atom 10:Atom 11:Atom 12:Atom 13:Atom 14:Atom 15:Atom 16:Atom 17:Atom 19:CLASS 20:CLASS 21:CLASS 22:CLASS 23:CLASS 24:CLASS 25:CLASS 27:CLASS 28:CLASS 29:CLASS 31:CLASS 32:CLASS

L1 STRUCTURE UPLOADED

=>
Uploading C:\Program Files\Stnexp\Queries\107220851.str



chain nodes :
19 20 21 22 23 24 25 27 28 29 31 32
ring nodes :
1 2 3 4 5 6 7 8 9 10 11 12 13 14 15 16 17
chain bonds :
2-19 5-14 9-17 12-23 19-20 19-21 20-22 21-31 22-32 23-24 23-25 24-27
25-29 27-28
ring bonds :
1-2 1-6 2-3 3-4 4-5 5-6 7-8 7-12 8-9 9-10 10-11 11-12 13-14 13-17
14-15 15-16 16-17
exact/norm bonds :
2-19 5-14 9-17 12-23 13-14 13-17 14-15 15-16 16-17 19-20 19-21 20-22
21-31 22-32 23-24 23-25 24-27 25-29 27-28
normalized bonds :
1-2 1-6 2-3 3-4 4-5 5-6 7-8 7-12 8-9 9-10 10-11 11-12
isolated ring systems :
containing 1 : 7 : 13 :

G1:O,S,CH2,NH

G2:H,Cb,Ak

Match level :
1:Atom 2:Atom 3:Atom 4:Atom 5:Atom 6:Atom 7:Atom 8:Atom 9:Atom 10:Atom
11:Atom 12:Atom 13:Atom 14:Atom 15:Atom 16:Atom 17:Atom 19:CLASS 20:CLASS
21:CLASS 22:CLASS 23:CLASS 24:CLASS 25:CLASS 27:CLASS 28:CLASS 29:CLASS
31:CLASS 32:CLASS

L2 STRUCTURE UPLOADED

=> s l2
SAMPLE SEARCH INITIATED 17:52:43 FILE 'REGISTRY'
SAMPLE SCREEN SEARCH COMPLETED - 6 TO ITERATE

100.0% PROCESSED 6 ITERATIONS 0 ANSWERS
SEARCH TIME: 00.00.01

FULL FILE PROJECTIONS: ONLINE **COMPLETE**
BATCH **COMPLETE**
PROJECTED ITERATIONS: 6 TO 266
PROJECTED ANSWERS: 0 TO 0

L3 0 SEA SSS SAM L2

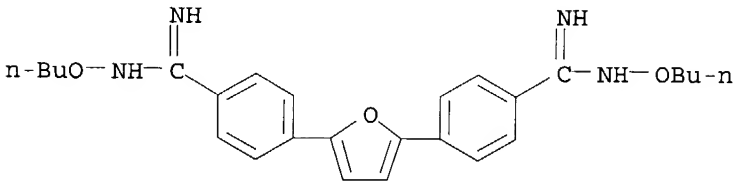
=> s l2 ful
FULL SEARCH INITIATED 17:52:49 FILE 'REGISTRY'
FULL SCREEN SEARCH COMPLETED - 131 TO ITERATE

100.0% PROCESSED 131 ITERATIONS 18 ANSWERS
SEARCH TIME: 00.00.01

L4 18 SEA SSS FUL L2

=> d scan

L4 18 ANSWERS REGISTRY COPYRIGHT 2004 ACS on STN
IN Benzenecarboximidamide, 4,4'-(2,5-furandiyl)bis[N-butoxy- (9CI)
MF C26 H32 N4 O3



PROPERTY DATA AVAILABLE IN THE 'PROP' FORMAT

HOW MANY MORE ANSWERS DO YOU WISH TO SCAN? (1):0

=> file caplus

COST IN U.S. DOLLARS	SINCE FILE ENTRY	TOTAL SESSION
FULL ESTIMATED COST	156.26	156.47

FILE 'CAPLUS' ENTERED AT 17:53:15 ON 23 NOV 2004
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COPYRIGHT (C) 2004 AMERICAN CHEMICAL SOCIETY (ACS)

FILE COVERS 1907 - 23 Nov 2004 VOL 141 ISS 22
FILE LAST UPDATED: 22 Nov 2004 (20041122/ED)

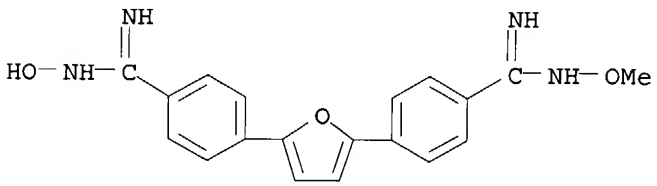
This file contains CAS Registry Numbers for easy and accurate substance identification.

```
=> sl4
SL4 IS NOT A RECOGNIZED COMMAND
The previous command name entered was not recognized by the system.
For a list of commands available to you in the current file, enter
"HELP COMMANDS" at an arrow prompt (=>).

=> s l4
L5          24 L4

=> s l5 and(process or synthes? or make or made or prepar? or making)
       2015736 PROCESS
       1337191 PROCESSES
       2994738 PROCESS
                 (PROCESS OR PROCESSES)
       1408419 SYNTHES?
        199908 MAKE
        154085 MAKES
        344179 MAKE
                 (MAKE OR MAKES)
       1122812 MADE
            24 MADES
       1122832 MADE
                 (MADE OR MADES)
       1507696 PREPAR?
        113402 PREP
          2009 PREPS
        115210 PREP
                 (PREP OR PREPS)
       1899226 PREPD
            21 PREPDS
       1899241 PREPD
                 (PREPD OR PREPDS)
        104072 PREPG
            12 PREPGS
        104083 PREPG
                 (PREPG OR PREPGS)
       2524098 PREPN
        197129 PREPNS
       2673564 PREPN
                 (PREPN OR PREPNS)
       4431116 PREPAR?
                 (PREPAR? OR PREP OR PREPD OR PREPG OR PREPN)
        237241 MAKING
            29 MAKINGS
        237264 MAKING
                 (MAKING OR MAKINGS)
L6          16 L5 AND(PROCESS OR SYNTHES? OR MAKE OR MADE OR PREPAR? OR MAKING)

=> d 16 ibib hitstr abs 1-16

L6   ANSWER 1 OF 16  CAPLUS  COPYRIGHT 2004 ACS on STN
```

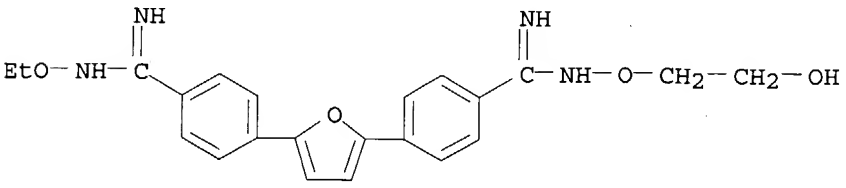
ACCESSION NUMBER: 2004:566930 CAPLUS
DOCUMENT NUMBER: 141:199478
TITLE: O-Alkoxyamidine Prodrugs of Furamidine: In Vitro Transport and Microsomal Metabolism as Indicators of in Vivo Efficacy in a Mouse Model of Trypanosoma brucei rhodesiense Infection
AUTHOR(S): Ansede, John H.; Anbazhagan, Mariappan; Brun, Reto; Easterbrook, Judy D.; Hall, James Edwin; Boykin, David W.
CORPORATE SOURCE: Division of Drug Delivery and Disposition School of Pharmacy, University of North Carolina at Chapel Hill, Chapel Hill, NC, 27599-7360, USA
SOURCE: Journal of Medicinal Chemistry (2004), 47(17), 4335-4338
CODEN: JMCMAR; ISSN: 0022-2623
PUBLISHER: American Chemical Society
DOCUMENT TYPE: Journal
LANGUAGE: English

IT **475976-08-0 743438-64-4 743438-66-6 743438-67-7 743438-68-8**
RL: BSU (Biological study, unclassified); PKT (Pharmacokinetics); BIOL (Biological study)
(in vitro transport and microsomal metabolism of O-alkoxyamidine prodrugs of furamidine as indicators of in vivo efficacy in mouse model of Trypanosoma brucei rhodesiense infection)

RN 475976-08-0 CAPLUS
CN Benzenecarboximidamide, 4-[5-[4-[(hydroxyamino)iminomethyl]phenyl]-2-furanyl]-N-methoxy- (9CI) (CA INDEX NAME)



RN 743438-64-4 CAPLUS
CN Benzenecarboximidamide, 4-[5-[4-[(ethoxyamino)iminomethyl]phenyl]-2-furanyl]-N-(2-hydroxyethoxy)- (9CI) (CA INDEX NAME)



RN 743438-66-6 CAPLUS
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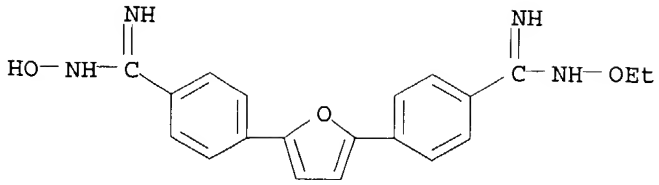

RN 743438-67-7 CAPLUS
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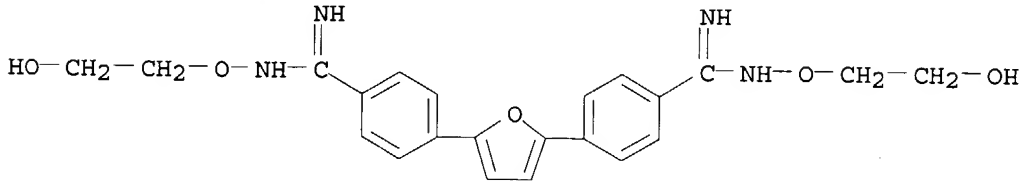

RN 743438-68-8 CAPLUS
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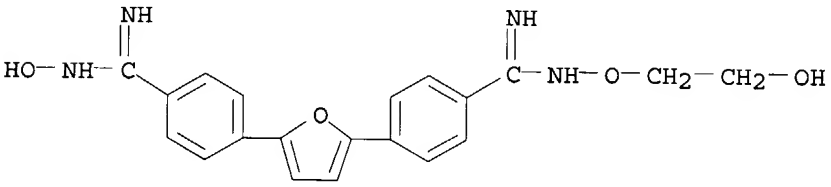
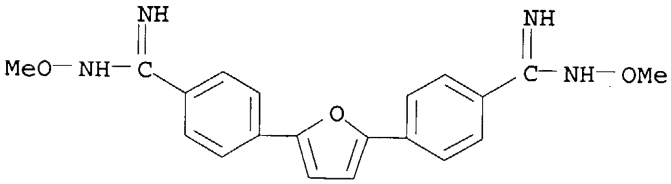
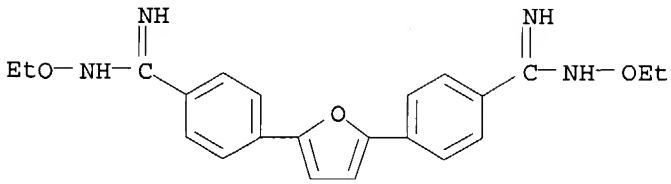


IT **186953-56-0P 186953-57-1P**
RL: PAC (Pharmacological activity); PKT (Pharmacokinetics); PRP (Properties); SPN (Synthetic preparation); THU (Therapeutic use); BIOL (Biological study); PREP (Preparation); USES (Uses)
(in vitro transport and microsomal metabolism of O-alkoxyamidine prodrugs of furamidine as indicators of in vivo efficacy in mouse model of Trypanosoma brucei rhodesiense infection)
RN 186953-56-0 CAPLUS
CN Benzenecarboximidamide, 4,4'-(2,5-furandiyl)bis[N-methoxy- (9CI) (CA INDEX NAME)



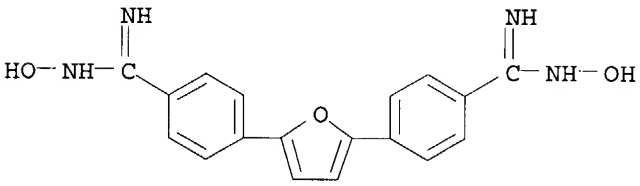
RN 186953-57-1 CAPLUS

CN Benzenecarboximidamide, 4,4'-(2,5-furandiyl)bis[N-ethoxy- (9CI) (CA INDEX NAME)

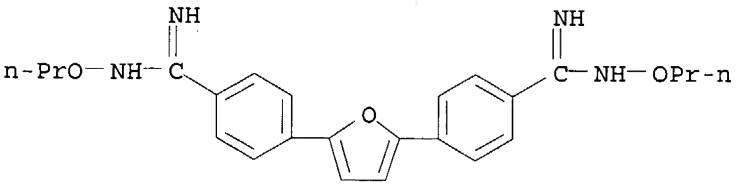


IT **186953-55-9P 582300-97-8P 743438-61-1P 743438-62-2P**
RL: PAC (Pharmacological activity); PRP (Properties); SPN (Synthetic preparation); THU (Therapeutic use); BIOL (Biological study); PREP (Preparation); USES (Uses)
(in vitro transport and microsomal metabolism of O-alkoxyamidine prodrugs of furamidine as indicators of in vivo efficacy in mouse model of Trypanosoma brucei rhodesiense infection)

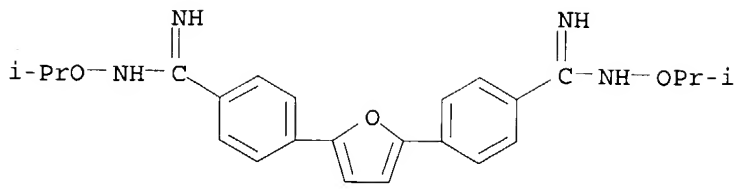
RN 186953-55-9 CAPLUS
CN Benzenecarboximidamide, 4,4'-(2,5-furandiyl)bis[N-hydroxy- (9CI) (CA INDEX NAME)



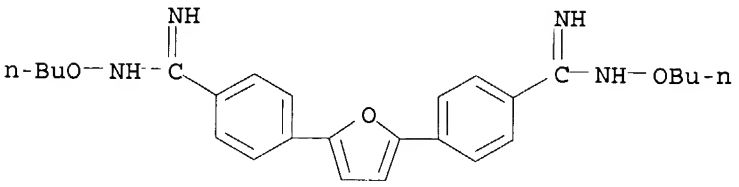
RN 582300-97-8 CAPLUS
CN Benzenecarboximidamide, 4,4'-(2,5-furandiyl)bis[N-propoxy- (9CI) (CA INDEX NAME)



RN 743438-61-1 CAPLUS
CN Benzenecarboximidamide, 4,4'-(2,5-furandiyl)bis[N-(1-methylethoxy)- (9CI) (CA INDEX NAME)



RN 743438-62-2 CAPLUS
CN Benzenecarboximidamide, 4,4'-(2,5-furandiyl)bis[N-butoxy- (9CI) (CA INDEX NAME)



AB Five O-alkoxyamidine analogs of the prodrug 2,5-bis[4-methoxyamidinophenyl]furan were **synthesized** and evaluated against Trypanosoma brucei rhodesiense in the STIB900 mouse model by oral administration. The observed in vivo activity of these prodrugs demonstrates that compds. with an O-methoxyamidine or O-ethoxyamidine group effectively cured all trypanosome-infected mice, whereas prodrugs with larger side-chains did not completely cure the mice. Permeability across Caco-2 cell monolayers and microsomal metabolism were used to identify the underlying mechanisms of prodrug efficacy.

REFERENCE COUNT: 12 THERE ARE 12 CITED REFERENCES AVAILABLE FOR THIS RECORD. ALL CITATIONS AVAILABLE IN THE RE FORMAT

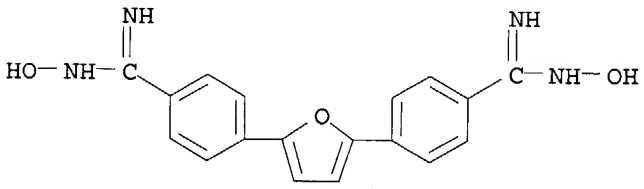
L6 ANSWER 2 OF 16 CAPLUS COPYRIGHT 2004 ACS on STN
ACCESSION NUMBER: 2004:493958 CAPLUS
DOCUMENT NUMBER: 141:54184
TITLE: Cross-coupling **process** and palladium catalysts for the **synthesis** of bis-aryl diamidoxime compounds
INVENTOR(S): Boykin, David W.; Anbazhagan, Mariappan; Tidwell, Richard R.
PATENT ASSIGNEE(S): University of North Carolina at Chapel Hill, USA; Georgia State University Research Foundation, Inc.
SOURCE: PCT Int. Appl., 16 pp.
CODEN: PIXXD2
DOCUMENT TYPE: Patent
LANGUAGE: English
FAMILY ACC. NUM. COUNT: 1
PATENT INFORMATION:

PATENT NO.	KIND	DATE	APPLICATION NO.	DATE
WO 2004051217	A2	20040617	WO 2003-US37788	20031125
WO 2004051217	A3	20040708		

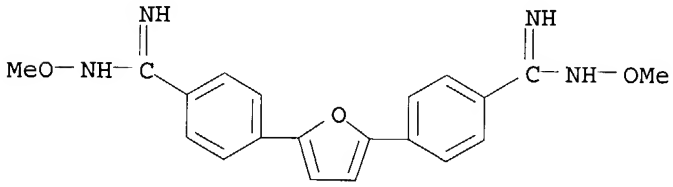
W: AE, AG, AL, AM, AT, AU, AZ, BA, BB, BG, BR, BW, BY, BZ, CA, CH, CN, CO, CR, CU, CZ, DE, DK, DM, DZ, EC, EE, EG, ES, FI, GB, GD, GE, GH, GM, HR, HU, ID, IL, IN, IS, JP, KE, KG, KP, KR, KZ, LC,

LK, LR, LS, LT, LU, LV, MA, MD, MG, MK, MN, MW, MX, MZ, NI, NO,
NZ, OM, PG, PH, PL, PT, RO, RU, SC, SD, SE, SG, SK, SL, SY, TJ,
TM, TN, TR, TT, TZ, UA, UG, US, UZ, VC, VN, YU, ZA, ZM, ZW, AM,
AZ, BY, KG, KZ
RW: BW, GH, GM, KE, LS, MW, MZ, SD, SL, SZ, TZ, UG, ZM, ZW, AT, BE,
BG, CH, CY, CZ, DE, DK, EE, ES, FI, FR, GB, GR, HU, IE, IT, LU,
MC, NL, PT, RO, SE, SI, SK, TR, BF, BJ, CF, CG, CI, CM, GA, GN,
GQ, GW, ML, MR, NE, SN, TD, TG

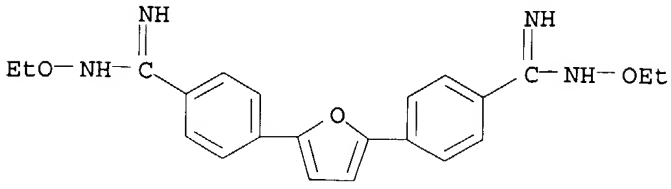
US 2004127721 A1 20040701 US 2003-722085 20031125
PRIORITY APPLN. INFO.: US 2002-429823P P 20021127
OTHER SOURCE(S): CASREACT 141:54184; MARPAT 141:54184
IT **186953-55-9P 186953-56-0P 186953-57-1P**
582300-97-8P
RL: SPN (Synthetic preparation); PREP (Preparation)
(cross-coupling **process** and palladium catalysts for the
synthesis of bis-aryl diamidoxime compds.)
RN 186953-55-9 CAPLUS
CN Benzenecarboximidamide, 4,4'-(2,5-furandiyl)bis[N-hydroxy- (9CI) (CA INDEX NAME)



RN 186953-56-0 CAPLUS
CN Benzenecarboximidamide, 4,4'-(2,5-furandiyl)bis[N-methoxy- (9CI) (CA INDEX NAME)



RN 186953-57-1 CAPLUS
CN Benzenecarboximidamide, 4,4'-(2,5-furandiyl)bis[N-ethoxy- (9CI) (CA INDEX NAME)



RN 582300-97-8 CAPLUS
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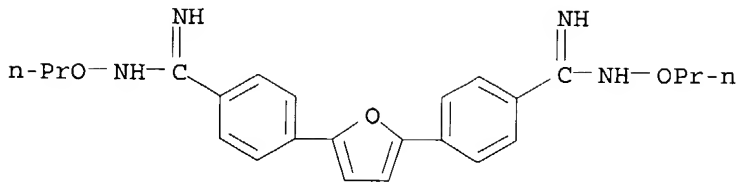
INDEX NAME)



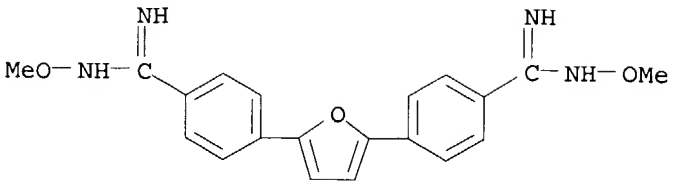
AB Bisaryl diamidoxime compds., such as 2,5-bis[4-hydroxy- and 4-O-alkylamidinophenyl]furans are **prepared** in high yield and selectivity from the one-step cross-coupling reaction of 2,5-bis(trialkylstannyl)heterocyclic compds. [e.g., 2,5-(bistributylstannyl)furan] with p-bromobenzamidoximes (e.g., p-bromobenzamidoxime) and their amidoxime ethers in the presence of a palladium catalyst [e.g., tetrakis(triphenylphosphine)palladium].

L6 ANSWER 3 OF 16 CAPLUS COPYRIGHT 2004 ACS on STN
ACCESSION NUMBER: 2003:991295 CAPLUS
DOCUMENT NUMBER: 140:35966
TITLE: Amidine derivatives for treating amyloidosis and neurodegenerative diseases
INVENTOR(S): Chalifour, Robert J.; Kong, Xianqi; Wu, Xinfu; Lu, Wenshuo; Tidwell, Richard R.; Boykin, David
PATENT ASSIGNEE(S): University of North Carolina At Chapel Hill, USA; Georgia State University Research Foundation, Inc.
SOURCE: PCT Int. Appl., 92 pp.
CODEN: PIXXD2
DOCUMENT TYPE: Patent
LANGUAGE: English
FAMILY ACC. NUM. COUNT: 2
PATENT INFORMATION:

PATENT NO.	KIND	DATE	APPLICATION NO.	DATE
WO 2003103598	A2	20031218	WO 2003-US17992	20030609
W: AE, AG, AL, AM, AT, AU, AZ, BA, BB, BG, BR, BY, BZ, CA, CH, CN, CO, CR, CU, CZ, DE, DK, DM, DZ, EC, EE, ES, FI, GB, GD, GE, GH, GM, HR, HU, ID, IL, IN, IS, JP, KE, KG, KP, KR, KZ, LC, LK, LR, LS, LT, LU, LV, MA, MD, MG, MK, MN, MW, MX, MZ, NI, NO, NZ, OM, PH, PL, PT, RO, RU, SC, SD, SE, SG, SK, SL, TJ, TM, TN, TR, TT, TZ, UA, UG, US, UZ, VC, VN, YU, ZA, ZM, ZW				
RW: GH, GM, KE, LS, MW, MZ, SD, SL, SZ, TZ, UG, ZM, ZW, AM, AZ, BY, KG, KZ, MD, RU, TJ, TM, AT, BE, BG, CH, CY, CZ, DE, DK, EE, ES, FI, FR, GB, GR, HU, IE, IT, LU, MC, NL, PT, RO, SE, SI, SK, TR, BF, BJ, CF, CG, CI, CM, GA, GN, GQ, GW, ML, MR, NE, SN, TD, TG				
US 2004147531	A1	20040729	US 2003-731463	20031205
PRIORITY APPLN. INFO.:			US 2002-387001P	P 20020607
			US 2001-316761P	P 20010831
			US 2002-234643	A1 20020903

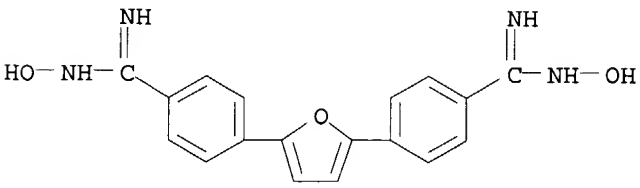
IT **186953-56-0**
RL: PAC (Pharmacological activity); THU (Therapeutic use); BIOL (Biological study); USES (Uses)
(**preparation** of amidine derivs. for treating amyloidosis and neurodegenerative diseases)
RN 186953-56-0 CAPLUS
CN Benzenecarboximidamide, 4,4'-(2,5-furandiyl)bis[N-methoxy- (9CI) (CA

INDEX NAME)



AB The present invention relates to the use of amidine compds. in the treatment of amyloid related diseases. In particular, the invention relates to a method of treating or preventing an amyloid-related disease in a subject comprising administering to the subject a therapeutic amount of an amidine compound Among the compds. for use according to the invention are those according to the following Formulas, such that, when administered, amyloid fibril formation, neurodegeneration, or cellular toxicity is reduced or inhibited.

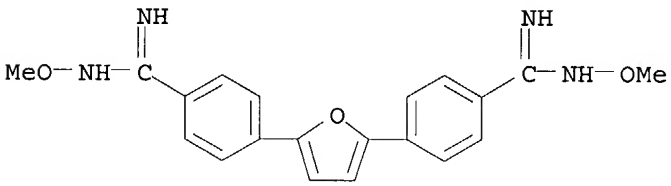
L6 ANSWER 4 OF 16 CAPLUS COPYRIGHT 2004 ACS on STN
ACCESSION NUMBER: 2003:949264 CAPLUS
DOCUMENT NUMBER: 140:93762
TITLE: Direct conversion of amidoximes to amidines via transfer hydrogenation
AUTHOR(S): Anbazhagan, Mariappan; Boykin, David W.; Stephens, Chad E.
CORPORATE SOURCE: Department of Chemistry, Georgia State University, Atlanta, GA, 30303, USA
SOURCE: Synthesis (2003), (16), 2467-2469
CODEN: SYNTBF; ISSN: 0039-7881
PUBLISHER: Georg Thieme Verlag
DOCUMENT TYPE: Journal
LANGUAGE: English
OTHER SOURCE(S): CASREACT 140:93762
IT **186953-55-9**
RL: RCT (Reactant); RACT (Reactant or reagent)
(conversion of amidoximes to amidines via transfer hydrogenation)
RN 186953-55-9 CAPLUS
CN Benzenecarboximidamide, 4,4'-(2,5-furandiyl)bis[N-hydroxy- (9CI) (CA INDEX NAME)



AB Amidoximes, O-alkylamidoximes, and O-acylamidoximes are directly converted to amidines by reaction with ammonium formate and Pd/C in HOAc.
REFERENCE COUNT: 37 THERE ARE 37 CITED REFERENCES AVAILABLE FOR THIS RECORD. ALL CITATIONS AVAILABLE IN THE RE FORMAT

L6 ANSWER 5 OF 16 CAPLUS COPYRIGHT 2004 ACS on STN
ACCESSION NUMBER: 2003:513253 CAPLUS

DOCUMENT NUMBER: 139:390750
TITLE: Detection of inhibition of bovine viral diarrhea virus by aromatic cationic molecules
AUTHOR(S): Givens, M. Daniel; Dykstra, Christine C.; Brock, Kenny V.; Stringfellow, David A.; Kumar, Arvind; Stephens, Chad E.; Goker, Hakan; Boykin, David W.
CORPORATE SOURCE: Department of Pathobiology, College of Veterinary Medicine, Auburn University, Auburn, AL, 36849, USA
SOURCE: Antimicrobial Agents and Chemotherapy (2003), 47(7), 2223-2230
CODEN: AMACCQ; ISSN: 0066-4804
PUBLISHER: American Society for Microbiology
DOCUMENT TYPE: Journal
LANGUAGE: English
OTHER SOURCE(S): CASREACT 139:390750
IT **186953-56-0**
RL: PAC (Pharmacological activity); THU (Therapeutic use); BIOL (Biological study); USES (Uses)
(inhibition of bovine viral diarrhea virus by aromatic cationic mols.)
RN 186953-56-0 CAPLUS
CN Benzenecarboximidamide, 4,4'-(2,5-furandiyl)bis[N-methoxy- (9CI) (CA INDEX NAME)



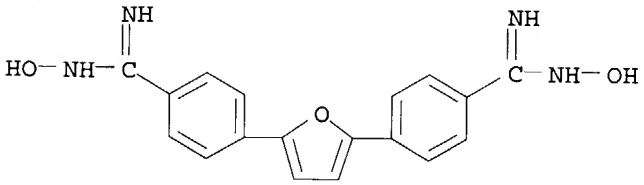
AB Bovine viral diarrhea virus (BVDV) is an economically significant pathogen of cattle and a problematic contaminant in the laboratory BVDV is often used as an in vitro model for hepatitis C virus during drug discovery efforts. Aromatic dicationic mols. have exhibited inhibitory activity against several RNA viruses. Thus, the purpose of this research was to develop and apply a method for screening the aromatic cationic compds. for in vitro cytotoxicity and activity against a noncytopathic strain of BVDV. The screening method evaluated the concentration of BVDV in medium and cell lysates after 72 h of cell culture in the presence of either a 25 or 5 μM concentration of the test compound Five of 93 screened compds. were selected for further determination of inhibitory (90 and 50%) and cytotoxic (50 and 10%) concentration endpoints. The screening method identified compds. that exhibited inhibition of BVDV at nanomolar concns. while exhibiting no cytotoxicity at 25 μM concns. The leading compds. require further investigation to determine their mechanism of action, in vivo activity, and specific activity against hepatitis C virus.
REFERENCE COUNT: 46 THERE ARE 46 CITED REFERENCES AVAILABLE FOR THIS RECORD. ALL CITATIONS AVAILABLE IN THE RE FORMAT

L6 ANSWER 6 OF 16 CAPLUS COPYRIGHT 2004 ACS on STN
ACCESSION NUMBER: 2003:416455 CAPLUS
DOCUMENT NUMBER: 139:197315
TITLE: A facile **synthesis** of the prodrug 2,5-bis(4-O-methoxyamidinophenyl)furan and analogs

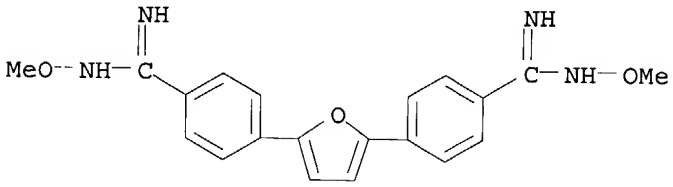
AUTHOR(S): Anbazhagan, Mariappan; Boykin, David W.
CORPORATE SOURCE: Department of Chemistry, Georgia State University, Atlanta, GA, 30303, USA
SOURCE: Heterocyclic Communications (2003), 9(2), 117-118
CODEN: HCOMEX; ISSN: 0793-0283
PUBLISHER: Freund Publishing House Ltd.
DOCUMENT TYPE: Journal
LANGUAGE: English
OTHER SOURCE(S): CASREACT 139:197315

IT **186953-55-9P 186953-56-0P 186953-57-1P 582300-97-8P**
RL: SPN (Synthetic preparation); PREP (Preparation)
(**synthesis** of 2,5-bis(4-O-methoxyamidinophenyl)furan and analogs)

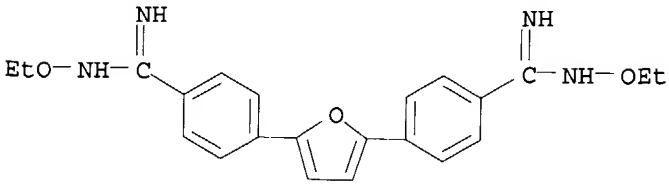
RN 186953-55-9 CAPLUS
CN Benzenecarboximidamide, 4,4'-(2,5-furandiyl)bis[N-hydroxy- (9CI) (CA INDEX NAME)



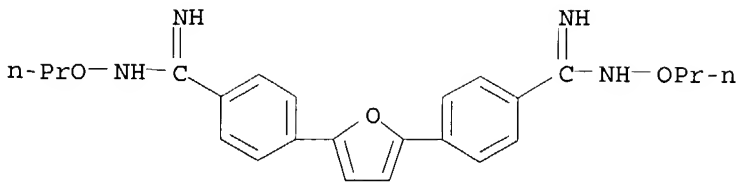
RN 186953-56-0 CAPLUS
CN Benzenecarboximidamide, 4,4'-(2,5-furandiyl)bis[N-methoxy- (9CI) (CA INDEX NAME)



RN 186953-57-1 CAPLUS
CN Benzenecarboximidamide, 4,4'-(2,5-furandiyl)bis[N-ethoxy- (9CI) (CA INDEX NAME)



RN 582300-97-8 CAPLUS
CN Benzenecarboximidamide, 4,4'-(2,5-furandiyl)bis[N-propoxy- (9CI) (CA INDEX NAME)



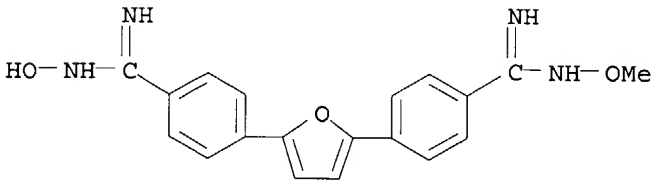
AB A convenient **synthesis** of the prodrug 2,5-bis(4-o-methoxyamidinophenyl)furan and analogs using 2,5-bis(tri-n-butylstannyl)furan and palladium catalyzed cross-coupling reactions is described. For example, refluxing 2,5-bis(tri-n-butylstannyl)furan with O-propyl-p-bromobenzamidoxime in dioxane in the presence of tetrakis(triphenylphosphine)palladium for 16 h gave 70% 2,5-bis(4-O-propoxyamidinophenyl)furan.

REFERENCE COUNT: 5 THERE ARE 5 CITED REFERENCES AVAILABLE FOR THIS RECORD. ALL CITATIONS AVAILABLE IN THE RE FORMAT

L6 ANSWER 7 OF 16 CAPLUS COPYRIGHT 2004 ACS on STN
ACCESSION NUMBER: 2003:338839 CAPLUS
DOCUMENT NUMBER: 139:230527
TITLE: **Synthesis** of metabolites of the prodrug 2,5-bis(4-o-methoxyamidinophenyl)furan
AUTHOR(S): Anbazhagan, Mariappan; Saulter, Janelle Y.; Hall, James E.; Boykin, David W.
CORPORATE SOURCE: Department of Chemistry, Georgia State University, Atlanta, GA, 30303, USA
SOURCE: Heterocycles (2003), 60(5), 1133-1145
CODEN: HTCYAM; ISSN: 0385-5414
PUBLISHER: Japan Institute of Heterocyclic Chemistry
DOCUMENT TYPE: Journal
LANGUAGE: English
OTHER SOURCE(S): CASREACT 139:230527

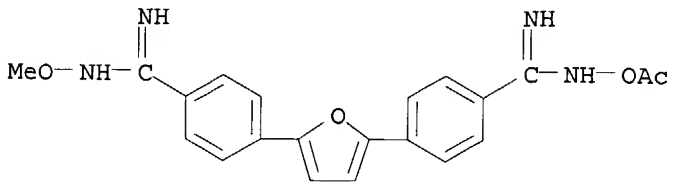
IT **475976-08-0P**, 4-[5-[4-[(Hydroxyamino)iminomethyl]phenyl]-2-furanyl]-N-methoxybenzenecarboximidamide
RL: SPN (Synthetic preparation); PREP (Preparation)
(4,4'-(2,5-furandiyl)bis[N-methoxybenzenecarboximidamide] metabolite; **preparation** of metabolites of prodrug [4,4'-(2,5-furandiyl)bis[N-methoxybenzenecarboximidamide])

RN 475976-08-0 CAPLUS
CN Benzenecarboximidamide, 4-[5-[4-[(hydroxyamino)iminomethyl]phenyl]-2-furanyl]-N-methoxy- (9CI) (CA INDEX NAME)

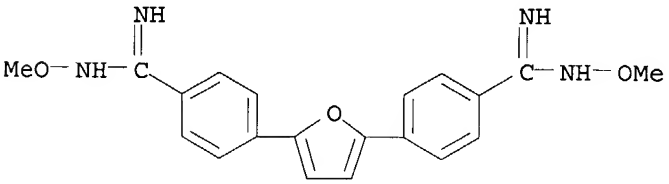


IT **591735-85-2P**
RL: RCT (Reactant); SPN (Synthetic preparation); PREP (Preparation); RACT (Reactant or reagent)
(**preparation** of metabolites of prodrug [4,4'-(2,5-furandiyl)bis[N-methoxybenzenecarboximidamide])

RN 591735-85-2 CAPLUS
CN Benzenecarboximidamide, 4-[5-[4-[[(acetyloxy)amino]iminomethyl]phenyl]-2-furanyl]-N-methoxy- (9CI) (CA INDEX NAME)



IT **186953-56-0DP**, 4,4'-(2,5-Furandiyl)bis[N-methoxybenzenecarboximidamide], metabolites
RL: SPN (Synthetic preparation); PREP (Preparation)
(**preparation** of metabolites of prodrug [4,4'-(2,5-furandiyl)bis[N-methoxybenzenecarboximidamide])
RN 186953-56-0 CAPLUS
CN Benzenecarboximidamide, 4,4'-(2,5-furandiyl)bis[N-methoxy- (9CI) (CA INDEX NAME)



AB The **synthesis** of three metabolites of the prodrug 2,5-bis(4-O-methoxyamidinophenyl)furan [i.e., 4,4'-(2,5-furandiyl)bis[N-methoxybenzenecarboximidamide]] was reported. Metabolites included 4-[5-[4-[(hydroxyamino)iminomethyl]phenyl]-2-furanyl]-N-methoxybenzenecarboximidamide, 4-[5-[4-[(methoxyamino)iminomethyl]phenyl]-2-furanyl]benzenecarboximidamide and 4-[5-[4-[(hydroxyamino)iminomethyl]phenyl]-2-furanyl]benzenecarboximidamide. The key step in each of the **syntheses** involves the Heck reaction.
REFERENCE COUNT: 13 THERE ARE 13 CITED REFERENCES AVAILABLE FOR THIS RECORD. ALL CITATIONS AVAILABLE IN THE RE FORMAT

L6 ANSWER 8 OF 16 CAPLUS COPYRIGHT 2004 ACS on STN
ACCESSION NUMBER: 2003:173414 CAPLUS
DOCUMENT NUMBER: 138:215350
TITLE: Amidine derivatives for treating amyloid-related diseases
INVENTOR(S): Chalifour, Robert J.; Kong, Xianqi; Wu, Xinfu; Lu, Wenshuo
PATENT ASSIGNEE(S): Neurochem Inc., Can.
SOURCE: PCT Int. Appl., 114 pp.
CODEN: PIXXD2
DOCUMENT TYPE: Patent
LANGUAGE: English
FAMILY ACC. NUM. COUNT: 2
PATENT INFORMATION:

PATENT NO.	KIND	DATE	APPLICATION NO.	DATE

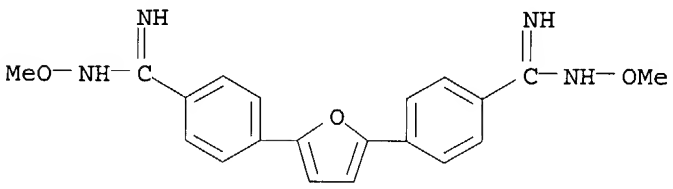
WO 2003017994	A1	20030306	WO 2002-CA1353	20020903
W: AE, AG, AL, AM, AT, AU, AZ, BA, BB, BG, BR, BY, BZ, CA, CH, CN, CO, CR, CU, CZ, DE, DK, DM, DZ, EC, EE, ES, FI, GB, GD, GE, GH, GM, HR, HU, ID, IL, IN, IS, JP, KE, KG, KP, KR, KZ, LC, LK, LR, LS, LT, LU, LV, MA, MD, MG, MK, MN, MW, MX, MZ, NO, NZ, OM, PH, PL, PT, RO, RU, SD, SE, SG, SI, SK, SL, TJ, TM, TN, TR, TT, TZ, UA, UG, UZ, VC, VN, YU, ZA, ZM, ZW, AM, AZ, BY, KG, KZ, MD, RU, TJ, TM				
RW: GH, GM, KE, LS, MW, MZ, SD, SL, SZ, TZ, UG, ZM, ZW, AT, BE, BG, CH, CY, CZ, DE, DK, EE, ES, FI, FR, GB, GR, IE, IT, LU, MC, NL, PT, SE, SK, TR, BF, BJ, CF, CG, CI, CM, GA, GN, GQ, GW, ML, MR, NE, SN, TD, TG				
US 2004006092	A1	20040108	US 2002-234643	20020903
EP 1420773	A1	20040526	EP 2002-758012	20020903
R: AT, BE, CH, DE, DK, ES, FR, GB, GR, IT, LI, LU, NL, SE, MC, PT, IE, SI, LT, LV, FI, RO, MK, CY, AL, TR, BG, CZ, EE, SK				
BR 2002012078	A	20040928	BR 2002-12078	20020903
US 2004147531	A1	20040729	US 2003-731463	20031205
PRIORITY APPLN. INFO.:			US 2001-316761P	P 20010831
			US 2002-387001P	P 20020607
			US 2002-234643	A1 20020903
			WO 2002-CA1353	W 20020903

OTHER SOURCE(S): MARPAT 138:215350

IT **186953-56-0**
RL: PAC (Pharmacological activity); THU (Therapeutic use); BIOL (Biological study); USES (Uses)
(amidine derivs. for treating amyloid-related diseases)

RN 186953-56-0 CAPLUS

CN Benzenecarboximidamide, 4,4'-(2,5-furandiyl)bis[N-methoxy- (9CI) (CA INDEX NAME)



AB The invention discloses the use of amidine compds. in the treatment of amyloid-related diseases (e.g. Alzheimer's disease, Down's syndrome, type II diabetes). In particular, the invention discloses a method for treating or preventing an amyloid-related disease in a subject comprising administering to the subject a therapeutic amount of an amidine compound The compds. of the invention (Markush included) are such that, when administered, reduce or inhibit amyloid fibril formation, neurodegeneration, or cellular toxicity. Compound **preparation** is described.

REFERENCE COUNT: 14 THERE ARE 14 CITED REFERENCES AVAILABLE FOR THIS RECORD. ALL CITATIONS AVAILABLE IN THE RE FORMAT

L6 ANSWER 9 OF 16 CAPLUS COPYRIGHT 2004 ACS on STN

ACCESSION NUMBER: 2002:146280 CAPLUS

DOCUMENT NUMBER: 136:321920

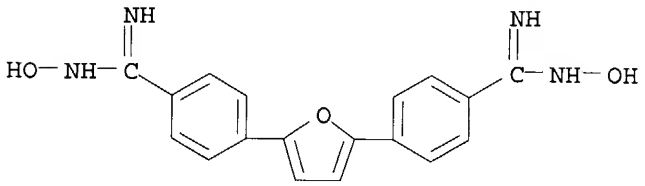
TITLE: Antileishmanial activities of several classes of aromatic dications

AUTHOR(S): Brendle, James J.; Outlaw, Abram; Kumar, Arvind;

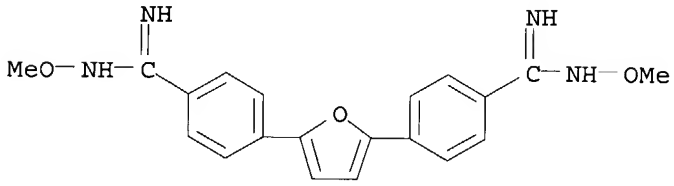
Boykin, David W.; Patrick, Donald A.; Tidwell, Richard R.; Werbovetz, Karl A.
CORPORATE SOURCE: Division of Experimental Therapeutics, Walter Reed Army Institute of Research, Silver Spring, MD, 20910, USA
SOURCE: Antimicrobial Agents and Chemotherapy (2002), 46(3), 797-807
CODEN: AMACCQ; ISSN: 0066-4804
PUBLISHER: American Society for Microbiology
DOCUMENT TYPE: Journal
LANGUAGE: English

IT **186953-55-9 186953-56-0**
RL: PAC (Pharmacological activity); PRP (Properties); THU (Therapeutic use); BIOL (Biological study); USES (Uses)
(antileishmanial activities of several classes of aromatic dications)

RN 186953-55-9 CAPLUS
CN Benzenecarboximidamide, 4,4'-(2,5-furandiyl)bis[N-hydroxy- (9CI) (CA INDEX NAME)



RN 186953-56-0 CAPLUS
CN Benzenecarboximidamide, 4,4'-(2,5-furandiyl)bis[N-methoxy- (9CI) (CA INDEX NAME)



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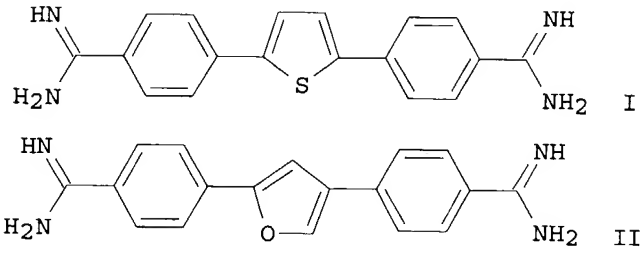
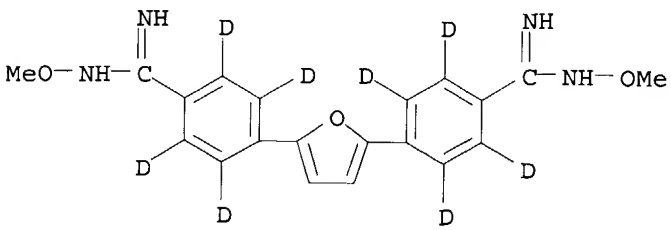


AB Aromatic dicationic mols. possess impressive activity against a broad spectrum of microbial pathogens, including Pneumocystis carinii,

Cryptosporidium parvum, and Candida albicans. In this work, 58 aromatic cations were examined for inhibitory activity against axenic amastigote-like Leishmania donovani parasites. In general, the most potent of the compds. were substituted di-Ph furan and thiophene dications. 2,5-Bis-(4-amidinophenyl)thiophene (I) was the most active compound This agent displayed a 50% inhibitory concentration (IC50) of 0.42 ± 0.08 μM against L. donovani and an in vitro antileishmanial potency 6.2-fold greater than that of the clin. antileishmanial dication pentamidine and was 155-fold more toxic to the parasites than to a mouse macrophage cell line. 2,4-Bis-(4-amidinophenyl)furan (II) was twice as active as pentamidine (IC50, 1.30 ± 0.21 μM), while 2,5-bis-(4-amidinophenyl)furan and pentamidine were essentially equipotent in our in vitro antileishmanial assay. Carbazoles, dibenzofurans, dibenzothiophenes, and benzimidazoles containing amidine or substituted amidine groups were generally less active than the di-Ph furans and thiophenes. In all cases, aromatic dications possessing strong antileishmanial activity were several-fold more toxic to the parasites than to a cultured mouse macrophage cell line. These structure-activity relationships demonstrate the potent antileishmanial activity of several aromatic dications and provide valuable information for the future design and **synthesis** of more potent antiparasitic agents.

REFERENCE COUNT: 35 THERE ARE 35 CITED REFERENCES AVAILABLE FOR THIS RECORD. ALL CITATIONS AVAILABLE IN THE RE FORMAT

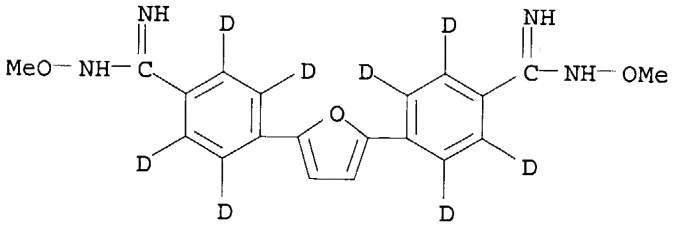
L6 ANSWER 10 OF 16 CAPLUS COPYRIGHT 2004 ACS on STN
ACCESSION NUMBER: 2001:151106 CAPLUS
DOCUMENT NUMBER: 134:326363
TITLE: **Synthesis** of deuterium-labeled 2,5-bis(4-amidinophenyl)furan, 2,5-bis[4-(methoxyamidino)phenyl]furan, and 2,7-diamidinocarbazole
AUTHOR(S): Stephens, Chad E.; Patrick, Donald A.; Chen, Heidi; Tidwell, Richard R.; Boykin, David W.
CORPORATE SOURCE: Department of Chemistry, Georgia State University, Atlanta, GA, 30303, USA
SOURCE: Journal of Labelled Compounds & Radiopharmaceuticals (2001), 44(3), 197-208
CODEN: JLCRD4; ISSN: 0362-4803
PUBLISHER: John Wiley & Sons Ltd.
DOCUMENT TYPE: Journal
LANGUAGE: English
OTHER SOURCE(S): CASREACT 134:326363
IT **336786-82-4P 336786-93-7P**
RL: SPN (Synthetic preparation); PREP (Preparation)
(**preparation** of deuterium-labeled bis(amidinophenyl)furan, bis[(methoxyamidino)phenyl]furan, and diamidinocarbazole)
RN 336786-82-4 CAPLUS
CN Benzene-2,3,5,6-d4-carboximidamide, 4,4'-(2,5-furandiyl)bis[N-methoxy- (9CI) (CA INDEX NAME)



RN 336786-93-7 CAPLUS
CN Benzene-2,3,5,6-d4-carboximidamide, 4,4'-(2,5-furandiyl)bis[N-methoxy-, (2Z)-2-butenedioate (1:2) (9CI) (CA INDEX NAME)

CM 1

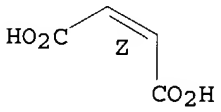
CRN 336786-82-4
CMF C20 H12 D8 N4 O3



CM 2

CRN 110-16-7
CMF C4 H4 O4

Double bond geometry as shown.



AB The **syntheses** of 2,5-bis(4-amidinophenyl)furan-d8 and 2,5-bis[4-(methoxyamidino)phenyl]furan-d8 from bromobenzene-d5 in six steps, and of 2,7-diamidinocarbazole-d6 from biphenyl-d10 in five steps, are described.

REFERENCE COUNT: 18 THERE ARE 18 CITED REFERENCES AVAILABLE FOR THIS RECORD. ALL CITATIONS AVAILABLE IN THE RE FORMAT

L6 ANSWER 11 OF 16 CAPLUS COPYRIGHT 2004 ACS on STN
ACCESSION NUMBER: 2001:50472 CAPLUS
DOCUMENT NUMBER: 134:120935
TITLE: Prodrugs for antimicrobial amidines
INVENTOR(S): Boykin, David W.; Rahmathullah, M. Syed; Tidwell, Richard R.; Hall, James E.
PATENT ASSIGNEE(S): University of North Carolina At Chapel Hill, USA
SOURCE: PCT Int. Appl., 45 pp.
CODEN: PIXXD2
DOCUMENT TYPE: Patent
LANGUAGE: English
FAMILY ACC. NUM. COUNT: 1
PATENT INFORMATION:

PATENT NO.	KIND	DATE	APPLICATION NO.	DATE
WO 2001003685	A2	20010118	WO 2000-US18499	20000706
WO 2001003685	A3	20020711		

W: AE, AG, AL, AM, AT, AU, AZ, BA, BB, BG, BR, BY, BZ, CA, CH, CN, CR, CU, CZ, DE, DK, DM, DZ, EE, ES, FI, GB, GD, GE, GH, GM, HR, HU, ID, IL, IN, IS, JP, KE, KG, KP, KR, KZ, LC, LK, LR, LS, LT, LU, LV, MA, MD, MG, MK, MN, MW, MX, MZ, NO, NZ, PL, PT, RO, RU, SD, SE, SG, SI, SK, SL, TJ, TM, TR, TT, TZ, UA, UG, US, UZ, VN, YU, ZA, ZW, AM, AZ, BY, KG, KZ, MD, RU, TJ, TM
RW: GH, GM, KE, LS, MW, MZ, SD, SL, SZ, TZ, UG, ZW, AT, BE, CH, CY, DE, DK, ES, FI, FR, GB, GR, IE, IT, LU, MC, NL, PT, SE, BF, BJ, CF, CG, CI, CM, GA, GN, GW, ML, MR, NE, SN, TD, TG

CA 2377902	AA	20010118	CA 2000-2377902	20000706
EP 1242059	A2	20020925	EP 2000-950293	20000706
R: AT, BE, CH, DE, DK, ES, FR, GB, GR, IT, LI, LU, NL, MC, IE, SI, LT, LV, FI, RO, MK, CY, AL				
JP 2003504329	T2	20030204	JP 2001-508966	20000706
US 6486200	B1	20021126	US 2000-612138	20000707
US 2002019437	A1	20020214	US 2001-918787	20010731
US 6503940	B2	20030107		
US 2003092755	A1	20030515	US 2002-208947	20020730
US 6649652	B2	20031118		

PRIORITY APPLN. INFO.:

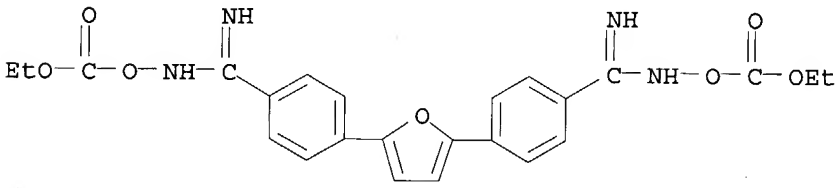
US 1999-142826P	P	19990708
WO 2000-US18499	W	20000706
US 2000-612138	A3	20000707
US 2001-918787	B3	20010731

OTHER SOURCE(S): MARPAT 134:120935

IT **247032-19-5P**
RL: BAC (Biological activity or effector, except adverse); BSU (Biological study, unclassified); SPN (Synthetic preparation); THU (Therapeutic use); BIOL (Biological study); PREP (Preparation); USES (Uses)
(prodrugs for antimicrobial amidines)

RN 247032-19-5 CAPLUS

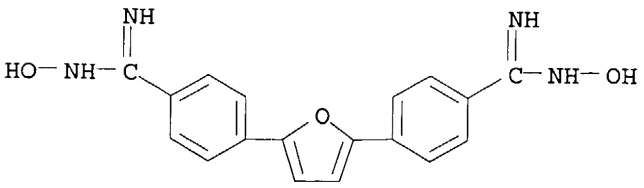
CN Benzenecarboximidamide, 4,4'-(2,5-furandiyl)bis[N-[(ethoxycarbonyl)oxy]- (9CI) (CA INDEX NAME)



IT **186953-55-9P**
RL: RCT (Reactant); SPN (Synthetic preparation); PREP (Preparation); RACT (Reactant or reagent)
(prodrugs for antimicrobial amidines)

RN 186953-55-9 CAPLUS

CN Benzenecarboximidamide, 4,4'-(2,5-furandiyl)bis[N-hydroxy- (9CI) (CA INDEX NAME)



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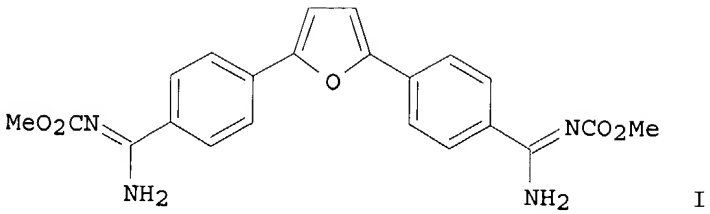
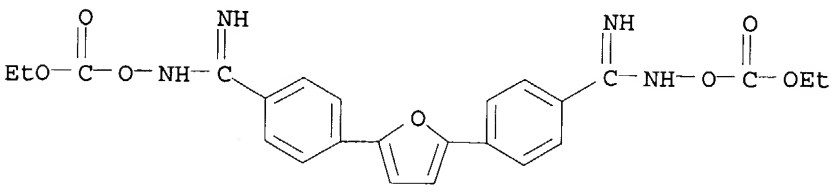


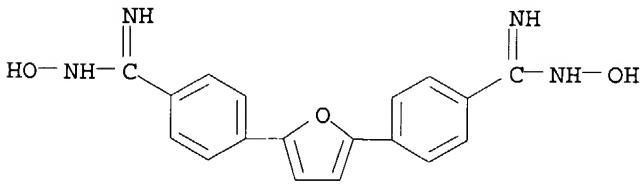
I

AB A methods of treating an infection comprises administering a therapeutically effective amount of a bis(amidinophenyl)furan. E.g., I was **prepared** along with 10 other similar compds. and showed in vivo activity against Pneumocystis carinii.

L6 ANSWER 12 OF 16 CAPLUS COPYRIGHT 2004 ACS on STN
ACCESSION NUMBER: 1999:562085 CAPLUS
DOCUMENT NUMBER: 131:299327
TITLE: Prodrugs for Amidines: **Synthesis** and Anti-Pneumocystis carinii Activity of Carbamates of 2,5-Bis(4-amidinophenyl)furan
AUTHOR(S): Rahmathullah, Syed M.; Hall, James Edwin; Bender, Brendan C.; McCurdy, Donald R.; Tidwell, Richard R.; Boykin, David W.
CORPORATE SOURCE: Department of Chemistry and Center for Biotechnology and Drug Design, Georgia State University, Atlanta, GA, 30303, USA
SOURCE: Journal of Medicinal Chemistry (1999), 42(19), 3994-4000
CODEN: JMCMAR; ISSN: 0022-2623
PUBLISHER: American Chemical Society
DOCUMENT TYPE: Journal
LANGUAGE: English
OTHER SOURCE(S): CASREACT 131:299327
IT **247032-19-5P**
RL: BAC (Biological activity or effector, except adverse); BSU (Biological study, unclassified); SPN (Synthetic preparation); BIOL (Biological study); PREP (Preparation)
(**preparation** and anti-Pneumocystis carinii activity of carbamates of bis(amidinophenyl)furan **prepared** from aryl alkyl and diaryl carbonates)
RN 247032-19-5 CAPLUS
CN Benzenecarboximidamide, 4,4'-(2,5-furandiyl)bis[N-[(ethoxycarbonyl)oxy]- (9CI) (CA INDEX NAME)



IT **186953-55-9**
RL: RCT (Reactant); RACT (Reactant or reagent)
(**preparation** and anti-Pneumocystis carinii activity of carbamates of bis(amidinophenyl)furan **prepared** from aryl alkyl and diaryl carbonates)
RN 186953-55-9 CAPLUS
CN Benzenecarboximidamide, 4,4'-(2,5-furandiyl)bis[N-hydroxy- (9CI) (CA INDEX NAME)



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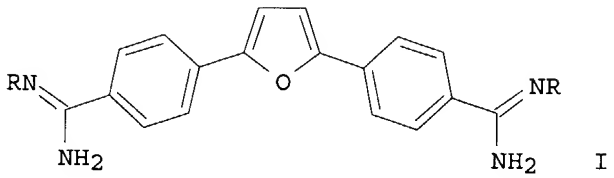


AB **Syntheses** of several carbamate analogs of 2,5-bis(4-amidinophenyl)furan (I, R = H) under mild conditions and their evaluation as prodrugs against Pneumocystis carinii pneumonia (PCP) in an immunosuppressed rat model are described. Thus, nine new bis(carbamates) of bis(amidine) I [R = MeO2C (II), Cl3CCH2O2C (III), EtSCO (IV), PhCH2O2C (V), (4-methyl-2-oxo-1,3-dioxol-4-en-5-yl)methoxycarbonyl (VI), PhO2C (VII), 4-FC6H4O2C (VIII), 4-MeOC6H4O2C (IX), AcOCHMeO2C (X)] and a bis(carbonate) [R = EtOC(O)O (XI)] have been **synthesized** and evaluated. The in vivo results show that VIII and IX had the best anti-PCP activity by both i.v. and oral administration. Compds. III-VII were also more active than the parent drug I on oral administration. The acute toxicity usually exhibited by the parent amidine I at 22 μmol/kg/day on i.v. administration has been significantly reduced by the prodrug modifications, with the exception of compound X which exhibited some toxicity. The **syntheses** of several aryl alkyl and diaryl carbonates as efficient reagents for the **preparation** of carbamate derivs. from bis(arylamidines) are also described.
REFERENCE COUNT: 40 THERE ARE 40 CITED REFERENCES AVAILABLE FOR THIS RECORD. ALL CITATIONS AVAILABLE IN THE RE FORMAT

L6 ANSWER 13 OF 16 CAPLUS COPYRIGHT 2004 ACS on STN
ACCESSION NUMBER: 1998:785675 CAPLUS
DOCUMENT NUMBER: 130:32999
TITLE: Benzamidoxime prodrugs as antipneumocystic agents
INVENTOR(S): Hall, James E.; Tidwell, Richard R.; Boykin, David W.
PATENT ASSIGNEE(S): Georgia State University Research Foundation Inc., USA; The University of North Carolina At Chapel Hill
SOURCE: U.S., 17 pp., Cont.-in-part of U.S. 5,723,495.
CODEN: USXXAM

DOCUMENT TYPE: Patent
LANGUAGE: English
FAMILY ACC. NUM. COUNT: 2
PATENT INFORMATION:

PATENT NO.	KIND	DATE	APPLICATION NO.	DATE
US 5843980	A	19981201	US 1996-751171	19961115
US 5723495	A	19980303	US 1995-558716	19951116
CA 2237650	AA	19970522	CA 1996-2237650	19961115
US 6025398	A	20000215	US 1998-127317	19980731
US 6214883	B1	20010410	US 2000-477390	20000104
AU 764937	B2	20030904	AU 2000-62473	20001004
US 2001044468	A1	20011122	US 2001-759664	20010112
US 6423737	B2	20020723		

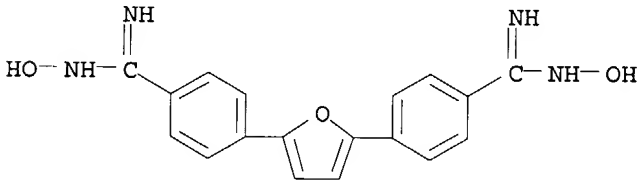
PRIORITY APPLN. INFO.:

US 1995-558716	A2	19951116
AU 1997-11605	A3	19961115
US 1996-751171	A3	19961115
US 1998-127317	A3	19980731
US 2000-477390	A3	20000104

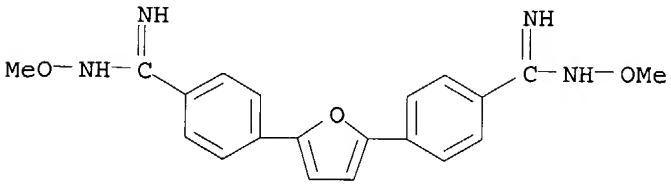
OTHER SOURCE(S): MARPAT 130:32999

IT **186953-55-9P 186953-56-0P 186953-57-1P**
RL: BAC (Biological activity or effector, except adverse); BSU (Biological study, unclassified); SPN (Synthetic preparation); THU (Therapeutic use); BIOL (Biological study); PREP (Preparation); USES (Uses)
(**preparation** of benzamidoxime prodrugs as antipneumocystic agents)

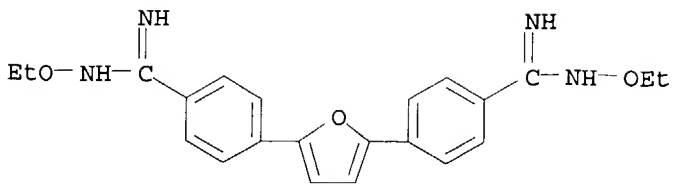
RN 186953-55-9 CAPLUS
CN Benzenecarboximidamide, 4,4'-(2,5-furandiyl)bis[N-hydroxy- (9CI) (CA INDEX NAME)



RN 186953-56-0 CAPLUS
CN Benzenecarboximidamide, 4,4'-(2,5-furandiyl)bis[N-methoxy- (9CI) (CA INDEX NAME)



RN 186953-57-1 CAPLUS
CN Benzenecarboximidamide, 4,4'-(2,5-furandiyl)bis[N-ethoxy- (9CI) (CA INDEX NAME)



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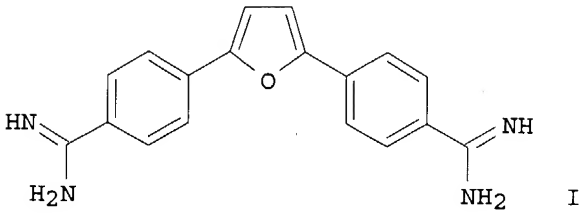
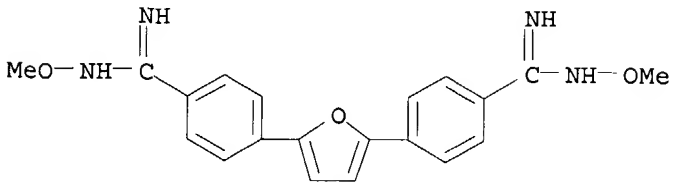


AB A method of treating Pneumocystis carinii pneumonia in a subject in need of such treatment is disclosed. The method comprises orally administering to the subject bis-benzamidoximes, such as I, which exhibited significant activity in infected rats (the anti-Pneumocystis value was expressed in percent of lung cysts in the treatment group vs. control group). The method of the present invention may alternatively comprise i.v. administering to the subject an active compound as disclosed herein. Pharmaceutical formulations and active compds. useful in the practice of the present invention are also disclosed.

REFERENCE COUNT: 19 THERE ARE 19 CITED REFERENCES AVAILABLE FOR THIS RECORD. ALL CITATIONS AVAILABLE IN THE RE FORMAT

L6 ANSWER 14 OF 16 CAPLUS COPYRIGHT 2004 ACS on STN
ACCESSION NUMBER: 1998:664986 CAPLUS
DOCUMENT NUMBER: 130:22621
TITLE: In vitro antifungal activities of a series of dication-substituted carbazoles, furans, and benzimidazoles
AUTHOR(S): Del Poeta, Maurizio; Schell, Wiley A.; Dykstra, Christine C.; Jones, Susan K.; Tidwell, Richard R.; Kumar, Arvind; Boykin, David W.; Perfect, John R.
CORPORATE SOURCE: Department of Medicine, Division of Infectious Diseases and International Health, Duke University Medical Center, Durham, NC, 27710, USA
SOURCE: Antimicrobial Agents and Chemotherapy (1998), 42(10), 2503-2510
CODEN: AMACCQ; ISSN: 0066-4804
PUBLISHER: American Society for Microbiology
DOCUMENT TYPE: Journal
LANGUAGE: English
IT **186953-56-0**
RL: BAC (Biological activity or effector, except adverse); BSU (Biological study, unclassified); PRP (Properties); THU (Therapeutic use); BIOL (Biological study); USES (Uses)
(in vitro antifungal activities of a series of dication-substituted carbazoles, furans, and benzimidazoles)

RN 186953-56-0 CAPLUS
CN Benzenecarboximidamide, 4,4'-(2,5-furandiyl)bis[N-methoxy- (9CI) (CA INDEX NAME)



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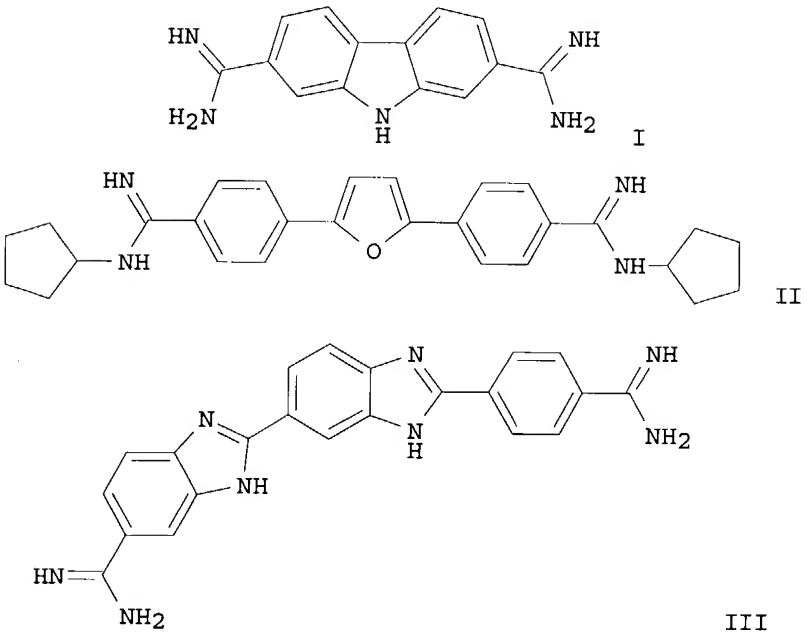


I

II

III

AB Aromatic dicationic compds. possess antimicrobial activity against a wide range of eucaryotic pathogens, and in the present study an examination of the structures-functions of a series of compds. against fungi was performed. Sixty-seven dicationic mols. were screened for their inhibitory and fungicidal activities against Candida albicans and Cryptococcus neoformans. The MICs of a large number of compds. were comparable to those of the standard antifungal drugs amphotericin B and fluconazole. Unlike fluconazole, potent inhibitory compds. in this series were found to have excellent fungicidal activities. Broad-spectrum activities were observed for the carbazole I, the furan II, and the benzimidazole III. The MIC of III, one of the most potent compds., against C. albicans was 0.39 μg/mL, and it was the most potent compound against C. neoformans (MIC, ≤0.09 μg/mL). Selected compds. were also found to be active against Aspergillus fumigatus, Fusarium solani, Candida species other than C. albicans, and fluconazole-resistant strains of C. albicans and C.

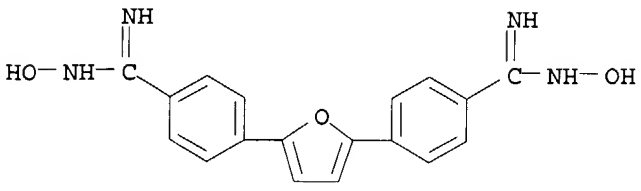
neoformans. Since of these compds. have been safely given to animals, these classes of mols. have the potential to be developed as antifungal agents.

REFERENCE COUNT: 32 THERE ARE 32 CITED REFERENCES AVAILABLE FOR THIS RECORD. ALL CITATIONS AVAILABLE IN THE RE FORMAT

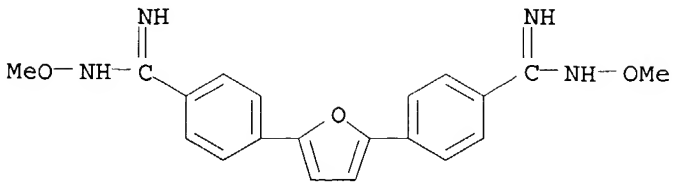
L6 ANSWER 15 OF 16 CAPLUS COPYRIGHT 2004 ACS on STN
ACCESSION NUMBER: 1997:425344 CAPLUS
DOCUMENT NUMBER: 127:29074
TITLE: Benzamidoxime prodrugs as antipneumocystic agents.
INVENTOR(S): Hall, James Edwin; Tidwell, Richard Ray; Boykin, David Withers
PATENT ASSIGNEE(S): University of North Carolina At Chapel Hill, USA; Georgia State University
SOURCE: PCT Int. Appl., 54 pp.
CODEN: PIXXD2
DOCUMENT TYPE: Patent
LANGUAGE: English
FAMILY ACC. NUM. COUNT: 2
PATENT INFORMATION:

PATENT NO.	KIND	DATE	APPLICATION NO.		DATE
WO 9717949	A1	19970522	WO 1996-US18496		19961115
W: AU, CA, IL, JP, KR					
RW: AT, BE, CH, DE, DK, ES, FI, FR, GB, GR, IE, IT, LU, MC, NL, PT, SE					
US 5723495	A	19980303	US 1995-558716		19951116
CA 2237650	AA	19970522	CA 1996-2237650		19961115
AU 9711605	A1	19970605	AU 1997-11605		19961115
EP 861071	A1	19980902	EP 1996-942773		19961115
R: CH, DE, ES, FR, GB, IT, LI					
JP 2000500469	T2	20000118	JP 1997-519146		19961115
AU 764937	B2	20030904	AU 2000-62473		20001004
PRIORITY APPLN. INFO.:			US 1995-558716	A	19951116
			AU 1997-11605	A3	19961115
			WO 1996-US18496	W	19961115

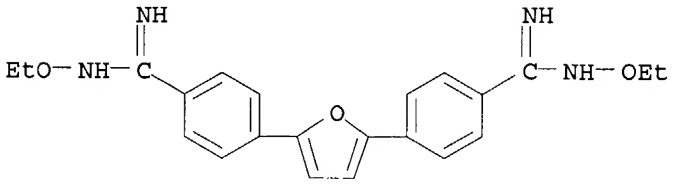
OTHER SOURCE(S): MARPAT 127:29074
IT **186953-55-9P 186953-56-0P 186953-57-1P**
RL: BAC (Biological activity or effector, except adverse); BSU (Biological study, unclassified); SPN (Synthetic preparation); THU (Therapeutic use); BIOL (Biological study); PREP (Preparation); USES (Uses)
(benzamidoxime prodrugs as antipneumocystic agents.)
RN 186953-55-9 CAPLUS
CN Benzenecarboximidamide, 4,4'-(2,5-furandiyl)bis[N-hydroxy- (9CI) (CA INDEX NAME)



RN 186953-56-0 CAPLUS
CN Benzenecarboximidamide, 4,4'-(2,5-furandiyl)bis[N-methoxy- (9CI) (CA INDEX NAME)

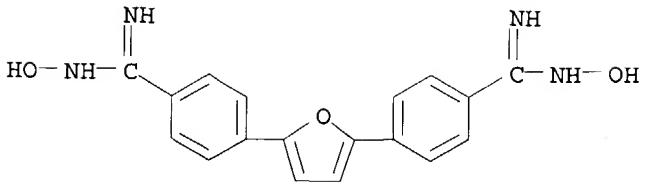


RN 186953-57-1 CAPLUS
CN Benzenecarboximidamide, 4,4'-(2,5-furandiyl)bis[N-ethoxy- (9CI) (CA INDEX NAME)

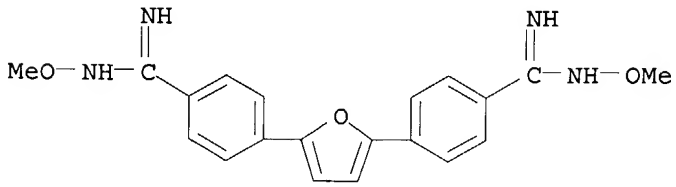


AB A method of treating Pneumocystis carinii pneumonia in a subject in need of such treatment is disclosed. The method comprises orally administering to the subject a bis-benzamidoxime, or a pharmaceutically acceptable salt thereof, that is reduced in the subject to produce a benzamidine having anti-P. carinii activity. The method of the present invention may alternatively comprise i.v. administering to the subject an active compound as disclosed herein. Pharmaceutical formulations and active compds. useful in the practice of the present invention are also disclosed. E.g., the compds. were **prepared** by reaction of 1,5-dibromopentane or 1,3-dibromopentane with the appropriate 4-hydroxybenzonitrile.

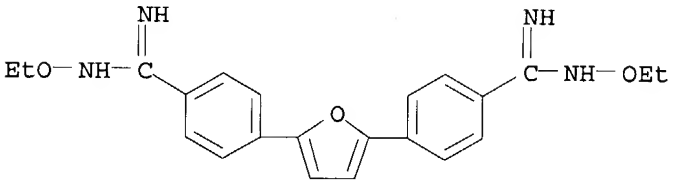
L6 ANSWER 16 OF 16 CAPLUS COPYRIGHT 2004 ACS on STN
ACCESSION NUMBER: 1997:49577 CAPLUS
DOCUMENT NUMBER: 126:152419
TITLE: Anti-pneumocystis activity of bisamidoximes and bis-O-alkylamidoximes prodrugs
AUTHOR(S): Boykin, David W.; Kumar, Arvind; Hall, James E.; Bender, Brendan C.; Tidwell, Richard R.
CORPORATE SOURCE: Department Chemistry Center Biotechnology Drug Design, Georgia State University, Atlanta, GA, 30303, USA
SOURCE: Bioorganic & Medicinal Chemistry Letters (1996), 6(24), 3017-3020
CODEN: BMCLE8; ISSN: 0960-894X
PUBLISHER: Elsevier
DOCUMENT TYPE: Journal
LANGUAGE: English
IT **186953-55-9P 186953-56-0P 186953-57-1P**
RL: BAC (Biological activity or effector, except adverse); BSU (Biological study, unclassified); SPN (Synthetic preparation); THU (Therapeutic use); BIOL (Biological study); PREP (Preparation); USES (Uses)
(anti-pneumocystis activity of bisamidoximes and bisalkylamidoximes prodrugs)
RN 186953-55-9 CAPLUS
CN Benzenecarboximidamide, 4,4'-(2,5-furandiyl)bis[N-hydroxy- (9CI) (CA INDEX NAME)



RN 186953-56-0 CAPLUS
CN Benzenecarboximidamide, 4,4'-(2,5-furandiyl)bis[N-methoxy- (9CI) (CA INDEX NAME)



RN 186953-57-1 CAPLUS
CN Benzenecarboximidamide, 4,4'-(2,5-furandiyl)bis[N-ethoxy- (9CI) (CA INDEX NAME)



AB The authors report the **synthesis** of 2,5-bis-[4-amidinophenyl]furan bisamidoxime, the corresponding bis-O-methylamidoxime and bis-O-ethylamidoxime and their evaluation as prodrugs against Pneumocystis carinii pneumonia.

REFERENCE COUNT: 19 THERE ARE 19 CITED REFERENCES AVAILABLE FOR THIS RECORD. ALL CITATIONS AVAILABLE IN THE RE FORMAT

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COST IN U.S. DOLLARS	SINCE FILE ENTRY	TOTAL SESSION
FULL ESTIMATED COST	88.40	244.87
DISCOUNT AMOUNTS (FOR QUALIFYING ACCOUNTS)	SINCE FILE ENTRY	TOTAL SESSION
CA SUBSCRIBER PRICE	-11.20	-11.20

STN INTERNATIONAL LOGOFF AT 17:54:56 ON 23 NOV 2004